and wasted the time and energy of those who have sat on the appropriate committees.

The appointment of consultants within the NHS has always been done by very responsible committees containing representatives of all interests and with outside observers. No doubt the occasional mistake has been made but on the whole the appointments committees have done their work well and efficiently. I know that the EEC suggests the need for some sort of specialist registration, but surely the appointment of a consultant under the NHS can be made the equivalent of specialist registration without the need for some lower grade of registration which does not carry consultant rank.

The establishment of training programmes has been an additional millstone round the neck of our young doctors for which the medical profession must be held responsible—we created it and should now abolish it.

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Megaloblastic anaemia associated with sulphasalazine treatment

SIR,—We were interested in the comments of Dr M C Bateson (16 July, p 190) on our report of a case of megaloblastic anaemia associated with sulphasalazine treatment (25 June, p 1638). We are, however, unable to accept his two criticisms.

Although the microbiological serum folate assay is invalidated by some antibacterial agents, we have not been able to find any evidence that this applies to sulphonamides. The two references quoted by Dr Bateson^{1 2} also do not refer to invalidation of the assay by sulphonamides. The first does not mention such interference at all and the second describes depression of serum folate by co-trimoxazole due to interference with the microbiological assay but shows that this is due to the trimethoprim component. This is supported by Streeter *et al.*,³ who showed that co-trimoxazole interfered with the assay but that sulphadimidine and sulphafurazole did not. Sulphasalazine contains sulphapyridine but no other antibacterial agent.

Dr Bateson's second point was that our patient might well have suffered from pernicious anaemia and not from folate deficiency. However, the serum vitamin B₁₂ level (200 ng/l) was not in the pernicious anaemia range. Moreover the Schilling test was normal and no antiparietal cell or anti-intrinsic factor antibodies were found. To date the patient, after cessation of treatment with sulphasalazine and folate repletion, remains well with a haemoglobin concentration of 13.6 g/dl and with no neurological complications. Therefore we still maintain that folate deficiency induced by treatment with sulphasalazine was the most likely cause of his short-lived megaloblastic anaemia.

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¹ Herxheimer, A, *Journal of Antimicrobial Therapy*, 1975, 1, 346.

² Bateson, M C, Hayes, J P L A, and Pendharkar, P, *Lancet*, 1976, 2, 339.

³ Streeter, A M, Shum, H Y, and O'Neill, B J, *Medical Journal of Australia*, 1970, 1, 900.

Management of the elderly agitated demented patient

SIR,—Dr G Silverman's letter (30 July, p 318) is a useful contribution to this most common problem in hospital and domiciliary geriatric practice.

Before embarking upon powerful drug therapy it is, of course, necessary to exclude physical causes of restlessness. Pain is, in my experience, poorly located by the demented. A quiet demented can go wild owing to a scybalous rectal impaction. I have also seen a screaming demented cured by the removal of a foreign body from the ball of the foot. I have seen fissure in ano and myxoedema madness present in a similar fashion.

In this hospital we find that this group of patients, whom we sometimes call the "wild wanderers," respond best to a combination of haloperidol and lorazepam. These two drugs together appear to be synergistic and in relatively small doses, such as 3 mg haloperidol and 1 mg lorazepam thrice daily, usually control the wildest wanderer.

This combination in larger doses converts the patient to a state of immobility almost statue-like by inducing Parkinsonism, which controls the wandering but interferes with food ingestion. This type of drug-induced Parkinsonism is remarkable for its rapid reversibility, provided the larger dose is reduced promptly. Withdrawing the drugs results in almost complete reversal of the Parkinson state within 48 h. We normally give this combination of drugs with small amounts of benzhexol. It can thus be seen that this combination of drugs constitutes a safe and useful tool for the control of the elderly agitated demented.

W FINE

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Acute suppurative thyroiditis caused by *Pseudomonas aeruginosa*

SIR,—With reference to the recent report by Drs F Saksouk and I S Salti (2 July, p 23), of a case of acute suppurative thyroiditis caused by *Escherichia coli* we wish to report a case of acute thyroiditis caused by another Gram-negative bacillus—namely, *Pseudomonas aeruginosa*.

A 77-year-old woman with no previous history of thyroid disease was admitted with a 14-day history of sudden painful swelling of the left thyroid lobe associated with redness of the overlying skin, fluctuation, and fever of 39°C. There was a firm, fluctuating, tender mass 6.5 × 6.0 cm in the region of the left thyroid lobe with no lymphadenopathy in the neck. A sodium pertechnetate scan revealed the affected area to be "cold"; the uptake in the right thyroid lobe was normal. The pulse rate of the patient was 80/min, her leucocyte count 15.1 × 10⁹/l (15 100/mm³), and her erythrocyte sedimentation rate 119 mm in the first hour. Serum thyroxine, measured by radioimmunoassay, was 70 nmol/l (5.4 µg/100 ml) (normal range 52–181 nmol/l (4–14 µg/100 ml)) and the response (measured by radioimmunoassay) to 200 µg of thyrotrophin-releasing hormone intravenously was normal. Urine analysis showed bacteriuria and urine culture yielded a significant bacteriuria with *E coli* and *Proteus vulgaris*. Blood cultures were negative. Radiography of the neck showed the trachea to be shifted to the right but otherwise intact. Incision of the swollen area yielded grey-yellow pus which on culture grew *Pseudomonas aeruginosa*. Cytological examination of a preliminary thin-needle aspirate showed

necrotic cells and no signs of malignancy. Appropriate antibiotic therapy with penicillin led to rapid recovery. At the time of discharge from hospital nine days later the affected thyroid region was painless.

The case reported here differs in two respects from the patient described by Drs Saksouk and Salti. (1) We could not find the source of infection; this is very often the case, as shown in the recent review by Volpé,¹ and therefore hematogenous infection has to be assumed in spite of negative blood cultures. (2) The affected thyroid area was "cold" in sodium pertechnetate scanning, a frequent finding in acute suppurative thyroiditis; however, it cannot be excluded that thyroiditis occurred here in a predamaged area (cold nodule). Apart from these two minor differences our case is very similar to that of Drs Saksouk and Salti, showing Gram-negative bacilli to be a possible and maybe not so rare cause of acute suppurative thyroiditis.

We thank Dr Depisch for surgical incision of the affected thyroid area.

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¹ Volpé, R, *Pharmacology and Therapeutics*, part C, 1976, 1, 171.

Prolonged action of intramuscular naloxone

SIR,—In part II of their article on the effects of naloxone on pethidine-induced neonatal depression Dr P C Wiener and others (23 July, p 228) report a prolonged duration of action (48 h) of naloxone administered in a large intramuscular dose when compared to a smaller umbilical vein dose, and attribute this to increased milk consumption speeding up pethidine excretion. We wish to offer an alternative explanation for the longer duration of action of intramuscular naloxone.

Absorption from an intramuscular injection is highly variable and depends on a number of factors¹: the drug's lipid/water solubility at physiological pH, the concentration of the injected solution, the characteristics of the injection vehicle, the surface area of the drug available for diffusion, and the blood flow to the injection site. These factors may have played a role in forming a functional depot of naloxone which provided a "continuous infusion" of antagonist to counteract a steadily declining agonist load.

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¹ Greenblatt, D J, and Koch-Weser, J, *New England Journal of Medicine*, 1976, 295, 542.

Management of vesicoureteric reflux in children

SIR,—Dr David Edwards and his colleagues (30 July, p 285) have suggested that cystoscopic appearance is of less importance in determining the management of children with vesicoureteric reflux than the observation of normal renal growth without scarring. In my experience with over 200 children suffering

from vesicoureteric reflux over a period of 15 years in this area cystourethroscopy, with measurement of the submucosal ureter and calibration of the urethra, has been a routine part of the investigation. The length of the intramural ureter is of considerably less value than that of the submucosal ureter. I consider these endoscopic procedures to be invaluable in helping to decide if reflux is likely to disappear spontaneously or not and therefore a great help in determining a rational programme of treatment. If the length of the submucosal ureter is over 0.5 cm and the bladder and urethra otherwise normal the reflux will almost certainly disappear spontaneously. This, as Dr Edwards has pointed out, may well take longer than two years, but with the confidence of a normal cystourethroscopic examination and an adequate submucosal ureter no arbitrary time limit need be set for "failed medical treatment." About 60% of children come into this class.

Cystourethroscopy is also invaluable in revealing defects which may escape radiology, and I believe that operation should be recommended early when it is clear that no amount of time will result in a spontaneous cure—for example, poorly developed trigone with widely separated gaping ureters, absence of any submucosal ureter, ureter opening into a diverticulum, varieties of duplex, etc. Rare cases of distal obstruction may on occasions escape detection by radiology.

I have found that on cystourethroscopic examination about 25% of children are recommended as candidates for operation. In about 15%, in whom the submucosal ureter is about 0.5 cm or less, the age of the child and severity of reflux, as well as social, geographical, and temperamental factors, play a large part in the planned treatment of the child. In the child with established renal scarring I consider cystourethroscopy to be mandatory if conservative treatment is planned, as only by this examination can the early resolution of reflux be forecast. This examination will spare a few children with established scarring from operation, but I consider that it is unjustifiable to await further evidence of renal scarring before recommending operative treatment as factors other than infections alone are involved in the production of renal damage, especially where there is intrarenal reflux.

In conclusion, I suggest that cystourethroscopy should be a routine in the assessment of children with vesicoureteric reflux as it allows a fairly accurate prediction of the disappearance or otherwise of the reflux to be made. This will allow treatment to be planned with confidence, reduces exposure to radiation, and should prevent further renal damage in those who have already sustained scarring.

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Infantile acne

SIR,—I think that Dr S J Carne (6 August, p 389) has missed the point of my letter. He is quite right in suggesting that milia appears very soon after birth, in contrast to the lesions in the children I observed, which were not apparent before three weeks of age in any case. Indeed, the appearance was not characteristically that associated with milia, which takes its name from its resemblance to millet seed. There was marked improvement when the

children were "treated" with an oestrogen/progestogen combination via breast milk. I felt, therefore, that it was reasonable to assume that the skin condition may have, at least in part, a hormonal basis, and that the oestrogen derivative of the pill may well have been counteracting a predominantly androgen effect. There is, of course, thought to be a similar explanation for the improvement of acne vulgaris in adolescent girls given the contraceptive pill.

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Renal lead excretion

SIR,—In recent years there has been increasing concern that present levels of environmental lead pollution, although not causing frank lead poisoning, may nevertheless be harmful to health. There is evidence that this is particularly likely where lead contaminates drinking water supplies.¹⁻⁴ Our previous studies have demonstrated associations between lead and both hypertension³ and renal insufficiency.⁴

In those studies, however, it was conceded that the disease states themselves might be partly responsible for the elevations of blood lead concentration by depressing renal lead excretion—in other words, that they might be the cause rather than the result of elevated blood lead concentrations. If minor degrees of renal impairment encountered in such epidemiological studies were indeed the cause of elevated blood lead levels one would expect to find some evidence of depressed lead excretion in subjects with severe renal dysfunction.

Accordingly we have looked at 12 patients, nine male and three female, aged 18-72 years, with differing levels of renal function as assessed by creatinine clearance. Four patients had normal renal function; four moderate renal impairment; and four had severe renal failure (table). In each case blood lead concentration was measured and urinary lead output determined over three consecutive 24-h periods. These measurements were made by flameless atomic absorption spectrophotometry and by polarography. Only about one-tenth of total blood lead is carried in the plasma and the technical difficulties encountered in the accurate measurement of such small concentrations makes formal renal lead clearance determination unreliable. This therefore was not attempted. Instead, the relationship of blood lead concentration to

urinary lead output is expressed as a simple arithmetic function in the final column of the table.

In all subjects urinary lead output was of the same order irrespective of renal function and, with one exception, blood lead concentrations fell within the normal range. The ratio of blood lead concentration to urinary lead output varied greatly but was in no way related to severity of renal disease. Clearly, this is an unsophisticated parameter, but because of the technical difficulties mentioned it is as accurate a reflection of renal lead handling as any other.

These findings indicate that it is unlikely that renal impairment is a significant cause of elevated blood lead concentration and that it is more probable that excessive lead in water is indeed one factor in the development of hypertension and renal disease in some subjects.

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¹ Beattie, A D, *et al*, *British Medical Journal*, 1972, 2, 491.

² Beattie, A D, *et al*, *Lancet*, 1975, 1, 589.

³ Beavers, D G, *et al*, *Lancet*, 1976, 2, 1.

⁴ Campbell, B C, *et al*, *British Medical Journal*, 1977, 1, 482.

Danger of instant adhesives

SIR,—There has been considerable concern about the dangers from cyanoacrylate glues, the glues that set within seconds by exclusion of air. It is possible to dissolve the glue both before it has set and after it has set using materials which are somewhat irritant but not unacceptably so under medical and nursing supervision.

If the glue has not set contaminated fingers should be kept well apart and immersed in water. This will then set the glue. The dry glue will come off the hands as the skin naturally replaces itself in the course of a day or so. Alternatively, the glue can be dissolved in xylene or toluene solvents, which are fairly common in laboratory and industrial settings and which are not unduly irritant to the skin. They would not be suitable for use in the eyes or in the mouth, of course.

Should body parts be stuck together and it be unacceptable to wait for the glue to fall off naturally, it can be dissolved by swabbing with a solution of nitromethane. This material is not particularly irritant to the skin, has a

Effect of renal dysfunction on blood lead concentration and urinary lead excretion

Case No	Age (years)	Sex	Creatinine clearance ml/min	Blood lead $\mu\text{mol/l}$	Urinary lead $\mu\text{mol/24 h}$	Ratio blood:urine
Normal renal function						
1	28	M	131	0.7	0.05	14
2	44	M	111	0.7	0.02	35
3	18	M	146	0.7	0.03	23
4	19	M	147	0.6	0.02	30
Moderate renal impairment						
5	67	F	22	0.9	0.09	10
6	72	F	24	0.7	0.14	5
7	35	M	30	1.3	0.18	7
8	61	F	16	2.2	0.18	12
Severe renal failure						
9	37	M	3	0.8	0.02	40
10	56	M	2	0.8	0.02	40
11	43	M	9	0.5	0.07	7
12	48	M	4	1.2	0.10	12

Conversion: SI to traditional units—Lead: 1 $\mu\text{mol/l} \approx 20.7 \mu\text{g/100 ml}$; 1 $\mu\text{mol/24 h} \approx 207 \mu\text{g/24 h}$